Civil War Battles User Manual

Introduction

Civil War Battles is a series of games that cover the battles and campaigns associated with the American Civil War. Each game can be played alone versus the computer, or against a human opponent using Play-By-E-Mail and Network Play (over a Local Area Network or the Internet). Each game is turn-based with each side moving and firing in their designated phase. A series of battles can be played in turn forming a complete campaign of the war.

The documentation for Civil War Battles is divided up into several parts:

- The **Getting Started Help File** covering the basics of play.
- This **User Manual** covering the general game.
- The **Main Program Help File** covering issues specific to the main game engine.
- The **Scenario Editor Help File** covering issues specific to the scenario editor.
- The **Campaign Editor Help File** covering issues specific to the campaign editor.

All documentation exists in Adobe PDF format.

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Quick Overview

This section provides a quick overview to playing the game and the functions of the main program. For more information, see the various sections on the Phases, Menus, Dialogs, and Other Features found in the help Contents.

Sides

A Civil War Battle is played by two sides, one Union and one Confederate. A battle may be played by one person against the computer, or by two persons using a variety of modes such as Two-Player Hot Seat, Play-By-E-Mail (PBEM), or Network Play . See the Modes Menu in the Main Program Help File for more information on these modes.

Hexes

Each battle is played on a map made up of hexagons (hexes). Each hex measures 125 yards across. Each hex contains terrain which affects movement and combat in that hex. See the Hex Info Area in the Main Program Help File for more information on terrain and its effects.

Turns

Each battle is conducted in turns each of which typically represents 20 minutes of real time, although this may vary by scenario. Each player has a number of units under their control, some of which are on the map at the beginning of the battle, while others arrive as Reinforcements. See the Units Menu in the Main Program Help File for more information.

Units

Typically, each unit is a regiment of Infantry, a regiment of Cavalry, or a battery of Artillery. Each Infantry and Cavalry unit has a strength value in increments of single men, while each Artillery unit has a strength value in number of guns. In addition there are specialized units such as Leaders and Supply Wagons. Infantry, Cavalry, and Artillery units are capable of firing on enemy units and each has a range value indicating the number of hexes that unit may fire. See

the Hex Info Area in the Main Program Help File for more information on these values.

Turns vs. Phases

Each battle can be fought in one of two modes. In the default Turn-based mode, each player moves, fires, and melees using units under his control in his turn. There are only a few restrictions on this:

- After firing, a unit cannot move for the remainder of the turn, but may melee in that turn.
- After meleeing, a unit cannot move or fire for the remainder of the turn.

The purpose of these restrictions is to help ensure that the resulting battles are fought in a manner similar to historical Civil War battles and with less flexibility that would be found in more modern combat. As each player performs actions in their turn, Defensive Fire is possible by the opposing side under the control of the computer. In the Phase-based mode, invoked using the Manual Defensive Fire Optional Rule, each turn is played as described in the next section.

Phases

Under the Manual Defensive Fire Option, each turn of the battle is divided into Phases. A Phase will be under the control of one side or the other. A complete turn is made up of a total of 10 phases. For example, if the Union player is the first player in each turn, the phases will be:

- Union Movement Phase
- Confederate Defensive Fire Phase
- Union Offensive Fire Phase
- Union Melee Phase
- Confederate Movement Phase
- Union Defensive Fire Phase
- Confederate Offensive Fire Phase
- Confederate Melee Phase

At the beginning of each Phase (under Local Control) the Phase Dialog is displayed (see the Main Program Help File). In each phase only certain actions are possible. Movement is restricted to the Movement Phase and firing is restricted to the Fire Phases, Defensive and Offensive. The Melee Phase allows hexes containing enemy units to be assaulted and possibly captured. See the Movement Phase, Defensive Fire Phase, Offensive Fire Phase, and Melee Phase for more information.

Selecting Units

Most actions require that units first be selected. Clicking on a hex on the map with the left mouse button causes that hex to become the current Hot Spot. The units in the current Hot Spot are displayed in the Hex Info area (see the Main Program Help File). These units may be selected by clicking on their pictures in the Hex Info Area with the left mouse button. Alternatively, all units in a hex may be selected by double clicking on the hex with the left mouse button. Once selected, units may be moved in the Movement Phase by right clicking on the adjacent hex to move to. Selected units may fire in a Fire Phase by right clicking on the target hex.

End Of Game

As each player finishes their turn or phase, they advance the battle to the next turn or phase by using the **Next Turn** or **Next Phase** function of the Turn/Phase Menu (see the Main Program Help File). This continues until the time limit specified in the scenario at which point the win, lose, or draw outcome of the battle is determined. Winning and losing are determined by a calculation based on the ownership of certain **Objective** hexes and the relative losses of the two sides. See the **Victory** selection of the Info Menu (in the Main Program Help File) for more information on victory conditions.

Unit Types

This section describes many of the various unit types that are in the game. Understanding the various unit types, their abilities and their restrictions, is key to successfully mastering Civil War tactics. Further detail on these unit types can be found in the succeeding sections of this manual.

Leaders

Leaders represent individuals that command the various forces. Leaders are used to improve the effectiveness of the forces under their command and to support other commanders subordinate to them. In general, the presence of commanders improves the Morale of units and thus increases their fighting abilities. Leaders can be Mounted (on horseback) or Dismounted (on foot).

Infantry Units

Infantry units have a strength measured in number of men. They have a Quality value which affects their effectiveness in combat. They have a weapon that allows them to fire at enemy units. They can also attack enemy units in melee attacks.

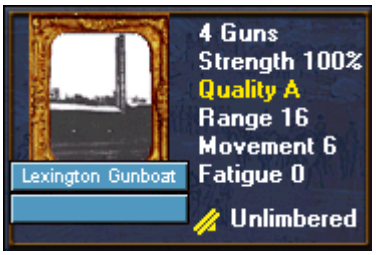
Cavalry Units

Cavalry units have a strength measured in number of men. They may be Mounted on their horses or Dismounted on foot. They have a weapon which may only be fired while Dismounted. They may Melee either Mounted or Dismounted, but Cavalry charges are not that effective against Infantry.

Artillery Units

Artillery units have a strength measured in number of guns. They can be either Limbered or Unlimbered. When Limbered, they can move but cannot fire. When Unlimbered, they can fire, but not move other than to change their facing.

Gunboats



Gunboats can only move in Water hexes. The can fire against ground units, but they may not melee. It is possible to fire on Gunboats, but generally that is not very effective.

Supply Wagons

Supply Wagons are used to resupply Infantry units that become Low or Out of Supply. For each unit of strength, they can resupply 10 men. They have no ability to attack the enemy but they can be captured by the enemy.

Unit Formations

This section describes the various formations that units may have. Each formation has a purpose and strengths and weaknesses in the game. Further detail on these formations and rules that apply to them can be found in subsequent sections in this manual. In each instance below, the icon and description you see in the Unit Picture when a unit is in the corresponding formation is shown.

Line Formation

Line formation can be used by Infantry units. The unit can fire while in this formation as well as move. This formation is the standard one for Infantry while in combat.

Column Formation

Column formation is used by Infantry units. It has increased mobility over Line formation and allows the unit to take advantage of roads and paths, but the unit cannot fire while in this formation. Column formation is also the only formation that Supply Wagons can have.

Mounted Formation

Mounted formation is the standard formation for Cavalry. The formation has good mobility, but Cavalry cannot fire and it is vulnerable to enemy fire while in this formation.

Dismounted Formation

Dismounted formation allows a cavalry unit to fire its weapons. In this formation, it moves and fights much like Infantry, however its effective strength is reduced by the need to have soldiers hold the horses.

Limbered Formation

Limbered formation is used by Artillery units and represents Artillery ready to be moved. While this is the formation you must use to move Artillery, it cannot fire in this formation.

Unlimbered Formation

Unlimbered formation is used by Artillery units and represents Artillery ready to fire. While in this formation, Artillery units cannot move, but may only change Facing.

Skirmishers Formation

This is a special case of Line formation where an Infantry or Dismounted Cavalry unit has deployed a line of Skirmishers in advance of its main formation. This line of Skirmishers will provide it with additional information and protection during battle, although it will slow the unit down in maneuvers.

Emplaced Formation

This represents artillery units that have been emplaced into fortifications or some other fixed position. Such units cannot move, change their facing, or change formation during the game.

The Basics

Movement

Movement involves moving units under your control during your Turn or during the Movement Phase. It is also used to perform certain functions such as changing facing and changes of formation (see the Command Menu in the Main Program Help File). No combat occurs during the Movement Phase. Each unit is allocated a certain movement allowance at the beginning of the Turn or Movement Phase. Each unit may use some, all, or none of its movement allowance during that turn or phase. Unused movement allowance points are not accumulated. Note that depending on the scenario, certain units may be Fixed which prevents them from being moved.

How To Move

Units must be selected before they are moved. Once selected, units may be moved to an adjacent hex by clicking on that hex with the right mouse button. Alternatively, it is possible to move the selected units to a nonadjacent hex by clicking the starting hex with the left mouse button, dragging the mouse to the ending hex while holding the mouse button down, and then releasing the mouse button. This will cause the computer to calculate a minimum-distance path from the starting hex to the ending hex and automatically move the selected units according to that path. Note that not all moves are possible depending on the terrain and movement allowance of the selected units.

Movement costs vary depending on the terrain being moved into and any hexsides being crossed. In general it is not possible to cross a **Creek** hexside except at a Ford or Bridge.

Stacking Limits

There is a limit to the number of men, cavalry, and guns that can be placed in any one hex at one time. This limit is given by Parameter Data and can be viewed using the Parameter Data Dialog from the Help Menu. The **Max Stacking** value determines the number of men that can be placed in any one hex. When a hex contains guns, then each gun counts as 50 men for the purpose of stacking. Thus if the Max Stacking value is 1000 men, then a hex can contain no more than 20 guns.

Zone-of-Control

The three facing hexes in front of a unit as shown in the illustration are called its Zone-of-Control. However, Leaders, Routed units, Limbered, Uncrewed, and Spiked Artillery do not have a Zone-of-Control. When a unit enters the Zone-of-Control of an enemy unit, it cannot move anymore in that Movement Phase. Under normal rules, a unit cannot retreat through an enemy Zone-of-Control.

Formation

Infantry units may move while either in Line or Column formation although movement is more efficient in Column. Note that under the Manual Defensive Fire option, an Infantry unit can only change to Line formation before it has moved although it may move after changing to Line formation. Artillery units must be Limbered in order to move. Cavalry and Leaders may move either Mounted or Dismounted. Under the Manual Defensive Fire Optional Rule, Cavalry which Dismounts during the Movement Phase is considered **Dismounting** and is thus still more vulnerable to enemy fire during the remainder of the turn.

All formation changes to Infantry, Artillery, Cavalry, and Leaders is performed using the Change Formation function of the Command Menu.

Road Movement

Depending on the scenario, there will be roads, paths, and main roads on the battlefield. These facilitate movement under certain circumstances. In order to take advantage of Road Movement, the unit moving must be in Column formation (for Infantry), Limbered (for Artillery), or Mounted for Cavalry. In addition, no more than one non-Leader unit may move through the hex containing the road, path, or main road at one time.

Disrupted Units

Disrupted units only have ½ the normal movement allowance. Under the Higher Disrupted Movement Optional Rule, Disrupted units will have ¾ of the normal movement allowance.

Disrupting Terrain

Certain terrain in a scenario may cause Disruption to units moving through it. This terrain is labeled as such in the Terrain Info Box in the Hex Info Area. The three types of terrain are labeled:

- Line Disruption – this terrain will cause Disruption to Infantry units in Line formation and Dismounted Cavalry units that move into it.
- Cav Disruption – this terrain will cause Disruption to Mounted Cavalry units that move into it unless they are using Road Movement.
- Line/Cav Disruption – this terrain has the combined effects of Line Disruption and Cav Disruption.
- All Disruption – this terrain will cause Disruption to all units that move into it unless they are using Road Movement.

Abatis

A hex may contain Abatis. A unit moving into a hex containing Abatis automatically becomes Disrupted unless it is using Road Movement. In addition, the unit pays a movement penalty and may suffer a fire modifier when fired upon depending on the value of the Parameter Data.

Breastworks

Breastworks may be placed in a scenario using the Scenario Editor or in scenarios that have a non-zero Breastworks Build Parameter Data value, it is possible for units to build Breastworks. Breastworks only apply to a given side of the hex. When a unit is fired upon or meleed against across that side, then a combat modifier applies as given by Parameter Data.

Trenches

Trenches may be placed in a scenario using the Scenario Editor. In scenarios that have a non-zero Trench Construction Parameter Data value, it is possible for units to build Trenches. A unit moving into a Trench hex from a non-Trench hex automatically becomes Disrupted unless it is using Road Movement. A unit pays a movement cost to enter a Trench hex, determined by Parameter Data. While in a Trench hex, a unit receives a fire modifier when fired upon determined by Parameter Data.

Making Entrenchments

As described above, it may be possible in a scenario for a unit to construct either Breastworks or Trenches.

- **Breastwork Building** - The scenario must have a non-zero Breastworks Build Parameter Data value. To build Breastworks, an infantry unit must be in Line formation, or a cavalry unit must be Dismounted. Use the **Make Entrenchments** option of the Command Menu. The unit will show up described as **Breastworks**.

- **Trench Construction** - The scenario must have a non-zero Trench Construction Parameter Data value. To construct Trenches, an infantry unit must be in Column formation, or a cavalry unit must be Mounted. Use the **Make Entrenchments** option of the Command Menu. The unit will show up described as **Entrenching.** For each hundred, or fraction of a hundred, men in a given hex Entrenching, 1 is added to the Tranve Value in that hex per turn. When the Trench Value in the given hex reaches the Trench Construction value, the hex will become a Trench hex.

Bridges

Normally movement into Water hexes is prohibited. However, depending on the scenario, Bridges may be present that allow Water hexes to be crossed. However, in order to move onto a Bridge, the unit must be in Column formation (Limbered for Artillery and Mounted for Cavalry) and no more than one non-Leader unit may attempt to enter or leave the Bridge hex at one time.

Bridge Repair

By default, a bridge must have a nonzero strength before it can be crossed by units and any bridge that has been damaged cannot be repaired. When the optional **Bridge Limit and Repair** rule is in effect, there are two changes that occur.

The first change is that there are minimum strength values that the bridge must have to support movement depending on the type of unit. These values are based on the Maximum Bridge strength value determined by Parameter data.

- A bridge must have a strength of at least 1/4 the maximum to carry infantry units or dismounted leaders.
- A bridge must have a strength of at least 1/2 the maximum to carry cavalry units or mounted leaders.
- A bridge must have a strength of at least 3/4 the maximum to carry artillery or supply wagons.

For example, if the maximum bridge strength is 200, then a bridge must have a strength value of 50 to carry infantry or dismounted leaders, 100 to carry cavalry or mounted leaders, and 150 to carry artillery or supply wagons.

The second change is that it is possible to repair bridges using infantry or cavalry. You use the **Repair Bridge** option of the Command Menu in the main program to toggle the state of units that you want to repair a bridge. There are several requirements for this:

- The unit doing the repair must be in column and must be facing the bridge.

- The unit cannot be Disrupted or Routed.
- The unit cannot have moved, fired, or meleed in that turn.

At the beginning of each subsequent turn, a calculation is performed to determine how much repair is achieved. For each 100 men repairing, the Repair bridge parameter value is used to determine the gain in strength of the bridge. Once the bridge reaches the maximum strength, it cannot be repaired any further.

Column Movement

It is possible to move several units at a single time using Column Movement. The units to be moved should all belong to the same organization and should be lined up in one hex after another, or in the same hex as they would be when first placed as reinforcements. You should double click on the head of the column to select all units in that hex. Then right click in the destination hex, while holding down the **Alt** key. This will move the first unit in the column towards the destination hex while moving each unit in turn along the same path.

Note that Column Movement is applied to units based on their organization and that the organization is determined by the top unit of those selected. For example, if the a unit from a particular Brigade is selected at the head of the column, then Column Movement will move all other units of the Brigade in the same hex or in hexes leading from that hex. Likewise, if a higher level leader is the top unit selected, the Column Movement will move all units from the leader's organization starting from the first hex. In this way it is possible to easily bring larger organizations on the map as reinforcements and march them into battle with a small effort.

Night Turns

Units that attempt to move in Line or Dismounted formation during Night turns automatically become Disrupted. Likewise, Artillery that Unlimbers during Night turns automatically becomes Disrupted.

Fixed Units

Certain units may start a scenario as Fixed. Fixed units may fire and may change formation, may not move until they are Released. This can occur in one of several ways:

- Units that are fired upon, or meleed against, are automatically Released.
- Depending on the scenario, there may be Releases of Fixed units built into the scenario which will release the units at specified times.
- If a Fixed unit is spotted by an enemy unit that is 5 hexes away or closer, then it automatically becomes Released. Note: under the Alternate Fixed Unit Release Optional Rule, the unit does not have to be spotted to be released.

Emplaced Units

A unit which is Emplaced is considered to be in a fixed position. Such units cannot move, change facing, or change formation. Unlike Fixed units which can be Released, an Emplaced unit cannot become unemplaced during a battle.

Skirmishers

Skirmishers represent small detachments in advance of the main line of Infantry. Skirmishers may be Deployed or Recalled only in the Movement Phase. You use the Deploy/Recall Skirmishers function in the Command Menu to do this. The following rules apply:

- Only Infantry in Line formation and Dismounted Cavalry may deploy Skirmishers.
- Disrupted and Routed units may not deploy Skirmishers.
- Units with less than 100 men may not deploy Skirmishers.
- Units that are in an enemy Zone-of-Control may not deploy Skirmishers.
- A unit may not recall Skirmishers after it has moved in that phase.

- It costs 1 Movement Point to deploy or recall Skirmishers.

Once deployed, Skirmishers have the following effects:

- One is added to the movement cost of any movement taken by a unit that has deployed Skirmishers.
- An additional movement cost is added to movement into the Zone-of-Control of an enemy unit that has deployed Skirmishers. This additional cost is determined by Parameter Data.
- A unit that has deployed Skirmishers has its effective strength reduced by 100 men when it fires and for the purpose of determining Breastwork construction.
- Any unit which attacks or defends in Melee will automatically have its Skirmishers recalled.

Under Fog-of-War, whenever an enemy unit moves into the shaded hexes of a unit with Skirmishers as shown in the illustration, then that unit is displayed as an Unknown unit. This detection is prevented however if another enemy unit is present in the unit's normal Zone-of-Control .

Mounted Cavalry Skirmishers

Under the Mounted Cavalry Skirmishers Optional Rule, all mounted cavalry has the ability to detect enemy units like infantry skirmishers can without having to explicitly deploy skirmishers and without having to pay the additional movement costs associated with skirmishers.

Uncrewed Artillery and Recrewing

When an artillery unit is fired upon by small arms fire, there is a probability that the artillery unit will become **Uncrewed**. This probability is determined by the **Crew Kill** Parameter Data Value. For a given Crew Kill value of C and a nominal strength loss of L from small arms fire, then:

Probability of crew killed = L / C

Thus if the nominal strength loss is 25 and the Crew Kill value is 100, there would be a 25% chance the crew would become killed.

While Uncrewed, the battery cannot fire or move (Exception: when the optional Artillery Capture rule is in effect, uncrewed artillery can be fired at half value when other units, friendly or enemy, are stacked in the same hex).

It is possible to recrew a friendly artillery unit by having a regular unit in the same hex as the Uncrewed battery. If the battery is horse artillery, then the regular unit must be cavalry. There must be at least 25 men in the regular unit for each gun of the battery. You then select both the battery and the regular unit and use the **Recrew Battery** command of the Command Menu. A recrewed battery always has Morale value 'F'.

Spiking Artillery

You can spike the guns of an artillery unit. When spiked, an artillery unit cannot fire for the remainder of the scenario. You must have a unit in the same hex as the artillery unit, possibly the artillery unit itself, that can do the spiking. The unit doing the spiking cannot be an uncrewed artillery unit, it cannot have meleed in the same turn, and it cannot have moved in that turn. This also means that captured artillery cannot be spiked in the same turn that it is captured.

To spike the battery, select it and then use the **Spike Battery** command of the Command Menu. Once spiked, it is not possible to unspike the battery during the scenario. For victory point calculations, spiked artillery only counts half of normal. This means you would spike an artillery unit when you feel that it is vulnerable to melee.

Retire By Prolonge

Under the Artillery Retire By Prolonge Optional Rule, it is possible to move unlimbered artillery one hex to the rear. The artillery unit must not be Disrupted, however it automatically becomes Disrupted as a result of the movement. The hex being moved from and the hex being moved into must

both be Clear and the hex being moved into must not be a higher elevation than the hex being moved from. After movement by Prolonge, it is possible for the artillery unit to fire.

Defensive Fire

Defensive Fire occurs either during the Defensive Fire Phase or when using Turns, under the control of the computer. This fire gives the player a chance to fire on the enemy before being fired upon and being engaged in melee. It therefore represents the ability of the defender to have "first fire". No movement is possible during a Fire phase. Defensive Fire is subject to the normal restrictions of firing including facing. However, it is possible for units with Low Ammo to fire Defensive Fire (see the Design Notes for why this true in the Defensive Fire Phase and not the Offensive Fire Phase).

How To Fire

To fire on the enemy, first Select the firing units. As a convenience, you may include Leaders in this selection although they have no effect on fire. Then you right-click on the target hex while holding down the **Ctrl** (Control) key. Alternatively, you may switch to **Fire Mode** by using a toolbar button, in which case you simply right-click on the target hex. If there is more than one possible target in the target hex, you will be prompted with the Target Dialog to select your target.

Firing effectiveness depends on the Weapon Type of the firing unit, the range from the firing unit to the target hex, the Fatigue of the firing unit, and the Quality of the firing unit.

Facing Restrictions

A unit must be facing the target unit before it can fire. A unit faces one of 6 hex sides represented by the facings "Up ", "Up-Right", "Down-Right", "Down ", "Down-Left", and "Up-Left". For each facing there are two other frontal hexsides which are adjacent to the facing hexside. The target unit must be within the area determined by these three hexsides. For example, for a unit facing Up, the unshaded region in this picture indicates those hexes the unit is facing.

Formation Restrictions

Infantry in Column, Mounted Cavalry, and Limbered Artillery cannot fire.

Range and Line of Sight Limitations

A target unit must be within range before it can be fired upon. The Unit List display shows you the range of a unit. In addition, the target unit must be within the Line of Sight of the firing unit. The **Visible Hexes** option of the Display menu can be used to determine the hexes that are visible from the current Hot Spot.

Movement Restriction

With one exception, artillery cannot fire after moving in the same turn. This applies to both movement between hexes and turning in the same hex. However, under the optional Retire by Prolonge rule, an artillery unit can fire after retiring by prolonge.

Firing Fire Modifiers

The following modifiers are applied to the firing unit.

- Disrupted units fire at 50% effectiveness.
- Units that are constructing Breastworks or Trenches fire at 50% effectiveness
- If the Firing Quality Modifier Optional Rule is in effect, a unit has 10% added to its fire value if it has a Quality of A or B, and 10% is subtracted from its fire value if it has a Quality of E or lower.
- Fatigue modifiers apply as described in the section on Fatigue.
- When not using the Manual Defensive Fire Optional Rule, Defensive Fire occurs at 50% effectiveness.

Target Fire Modifiers

The following modifiers are applied to the target of ranged fire.

- Target units which have not moved during their turn get a defensive benefit from certain hexsides. The actual benefit is determined by Parameter Data and can be found by using the **Parameter Data** option of the Help menu .
- Target units may get a defensive benefit from the terrain of the hex they are in. The benefit is shown in the Terrain Info box of the Unit List.
- The target unit receives a defensive benefit when it is at a higher elevation than the firing unit. This benefit is normal for a single elevation change and is doubled for any elevation change of 2 increments or more. The actual value of this benefit can be found in the Parameter Data .

- A unit in Line formation that is fired upon by a firing unit that it is not facing is subject to an Enfilade fire modifier. The value of this modifier is in the Parameter Data.
- The Enfilade fire modifier also applies to any fire against Infantry in Column or Limbered Artillery.
- When the target unit is in Abatis, behind Breastworks, or in a Trench Hex, a modifier determined by Parameter Data is applied.
- Fire against a Cavalry unit may be modified by the Cavalry Fire Modifer Parameter Data value.

Fire Casualties

Fire casualties are calculated using the standard Combat Results based on the effective fire value of the firing unit with a Low Combat Value of 5 and a High Combat Value of 25.

Example: Suppose an Infantry Unit of 340 men equipped with Rifles fires at an enemy infantry unit 1 hex away. The standard range effectiveness of a Rifle at range 1 is 4. Thus the standard fire value for the unit would be 1360 (=340 x 4). The low end combat result would be 6.8 (= 5 * 1360 / 1000) and the high end combat result would be 34 (= 25 * 1360 / 1000). The actual combat result would be randomly determined between these two extremes. Randomly based on the fractional part of the actual combat result, the combat result is truncated up or down. This if the actual combat result was calculated to be 23.4, then this would determine a combat loss of 23 men 60% of the time and a loss of 24 men 40% of the time.

Bridge Damage

A Bridge that is not occupied can be fired upon by Artillery and meleed against by Infantry and Cavalry. The purpose of this is to provide a means for destroying bridges in the game. The combat results from melees are only applied to the Bridge and not the attacking forces. When the strength of the Bridge is reduced to 0, then the Bridge cannot be crossed. Under the optional Bridge Limit and Repair rule, the rule for crossing bridges is changed and the ability to repair bridges is supported (see the Movement section).

Cavalry Rules

Dismounted Cavalry fires at ¾ effectiveness to account for the horse holders. In addition, in the first Defensive Fire Phase after changing formation from Mounted to Dismounted, Cavalry is considered "Dismounting" and is subject to the normal mounted Cavalry fire modifiers when fired upon by the enemy.

Indirect Fire

Gunboats and certain weapons such as mortars can fire at hexes that are not visible from their location. However, when they do this, the fire is subject to a random scatter from the target hex of up to 2 hexes in any direction. In addition, the specific target unit is determined randomly from the units in the resulting target hex, if any.

To determine which units can fire indirect, right click on the unit picture. Units with an Indirect Fire capability will have the words **Indirect Fire** in the unit picture display.

Artillery Ammunition

Normally artillery ammunition is provided in a scenario based the number of batteries in the scenario for each side. In the Terrain Info box, the amount of artillery ammunition is displayed with the Union value first and the Confederate value second. As each artillery battery fires, this amount is reduced for that side by one. During opportunity fire, the value will decrease by one only half the time on average however. When artillery arrives as a reinforcement, then the value will increase representing the ammo that arrives with each battery.

Supply Wagons have no affect on artillery ammunition and are only used to provide small arms ammunition to infantry and cavalry.

Under the **Artillery Ammo by Cannon** optional rule, artillery ammunition and usage is computed on a per-cannon basis instead of a per-battery basis. All other rules concerning artillery ammunition remain the same.

Offensive Fire

Offensive Fire occurs during a player's turn or during the Offensive Fire Phase. This allows units that may have advanced during the Turn or Movement Phase to fire after movement. All fire modifiers and restrictions described in the section on Defensive Fire apply to Offensive Fire as well.

Offensive Fire Modifiers and Effects

- Units which fire Offensive Fire after movement in the current Turn do so at half effectiveness.
- Units which are Low On Ammo cannot fire Offensive Fire.

Units which do not fire in the Turn or Offensive Fire Phase, receive a 10% bonus to the melee strength if they attack in the current Turn or subsequent Melee Phase (see the Design Notes for an explanation).

Meleeing

Meleeing allows the controlling player to initiate attacks against enemy units in adjacent hexes and possibly occupy the defending hex. In order for a unit to be committed to a melee attack, they must be facing the defending hex.

How To Melee

A Melee consists of a couple of decisions. You must first decide which enemy location you wish to Melee attack. You can specify that location by right-clicking in the enemy hex. You then must decide which of your own forces you wish to commit to the melee. They must be in adjacent hexes and facing the enemy hex. You Select the units you wish to commit, and then use the **Add to Melee** command of the Melee Menu to add them to the attack. Once you have added all of your attacking units, you resolve the Melee using the **Resolve Melee** command of the Melee Menu, or the corresponding toolbar button.

A second, perhaps easier method for initiating and resolving Melees is via the "drag and drop" method. Here you simply select the attacking units and, while holding down the left mouse button, move the mouse to the target hex and let go. You can do this for as many attacking units as you wish to add. Then you resolve the Melee normally using the menu command or toolbar button.

Certain restrictions apply to units that are committed to a Melee attack.

- Disrupted, Fixed or Routed units cannot Melee attack.
- Units must be Facing the hex they are attacking.
- Infantry units and Dismounted Cavalry cannot Melee attack non-Isolated Mounted Cavalry.
- Artillery and Supply Wagons cannot Melee attack.
- A unit cannot Melee attack a hex they could not legally move into (it is not possible to Melee attack across an unbridged Creek hexside for example).
- Units may only Melee attack once in each Melee Phase.
- The total number and strength of the attacking units may not exceed the stacking limitations of the defending hex.
- Cavalry which is Dismounting cannot Melee attack.

Melee Modifiers

Melees are calculated using total number of men of the attacking side and the total number of men of the defending. Modifiers may be applied to the calculation of the defending men.

- Each defending Artillery gun counts as one third Stacking Point (this depends on Parameter Data but would normally work out to 8 men per gun).
- Routed and Isolated units have their defending strength divided by 4. However, units that are both Routed and Isolated have a defending strength of 0.
- Units that have already defended in melee and have retreated into a hex that is then attacked in melee have their defending strength divided by 2.
- Supply Wagons and Uncrewed or Spiked Artillery defend against melee with a strength of 0.
- Modifiers are applied to the melee strengths.
- If no attacking units have fired in the Turn or preceding Offensive Fire Phase, then 10% is added to the attacking strength.
- If the attacking units have a Leader with them, then 10% is added to the attacking strength.
- If the defending units have a Leader with them, then 10% is added to the defending strength.
- If the defending units are attacked (by a non-Leader) from a hexside they are not facing, then 20% is added to the attacking strength.
- The largest hexside modifier of all of the hexsides the attackers are attacking through is applied to the attacking strength. Likewise, if the attackers are attacking across a Breastwork hexside, then the Breastwork modifier, as determined by Parameter Data, is applied to the attacking strength.
- If the attackers are attacking across a Creek hexside via a Bridge, then 30% is subtracted from the attacking strength.
- Melee attacks against higher elevations have a modifier equal to the elevation change (in elevation increments) times the Elevation Modifier (see the Parameter Dialog for this value).
- Fatigue modifiers apply as described in the section on Fatigue.
- Under the Quality Melee Modifiers Optional Rule, if the unit of lowest Quality on a given side has Quality of A or B, then that side receives a 10% bonus. If the unit of highest Quality on a given side has Quality of E or less, then that side receives a 10% penalty.
- Dismounted Cavalry has an effective strength for Melee purposes that is ¾ of its normal strength to account for horse holders.

- If the attacking force consists entirely of Mounted Cavalry and Leaders attacking a Clear hex from all Clear hexes, then 25% is added to the attacking strength.

Melee Resolution

The final resolution of the melee is done using the standard Combat Results. The adjusted defending strength is used to calculate attacker casualties using a Low Combat Value of 50 and a High Combat Value of 200. The adjusted attacking strength is used to calculate defender casualties using a Low Combat Value of 25 and a High Combat Value of 125. The loser is the side with the greater casualties (defenders win ties). Melee fatigue losses are 50% more than normal and, in the case of the melee loser, fatigue losses are double. The melee defender is subject to normal Morale Checks based on their losses and must automatically take a Morale Check at the end of the Phase if they lose the melee.

Example: Suppose an infantry unit of 450 men melee attacks an enemy infantry unit of 230 men. Two combat results are determined. The attackers would determine a low end casualty value of 11.25 (= 25 * 450 / 1000) and a high end casualty value of 56.25 (= 125 * 450 / 1000). The casualty loss of the defenders would be randomly determined between these two extremes. Likewise, the defenders would determine a low end casualty value of 11.5 (= 50 * 230 / 1000) and a high end casualty value of 46 (= 200 * 230 / 1000). The casualty loss of the attackers would be randomly determined between these two extremes.

Night Attack Penalty

When units melee attack at night, a possible fatigue penalty applies. This penalty is the Night Attack Penalty Parameter Data Value. This value is added to the nominal fatigue accumulation of units attacking at night. This value is subject to the normal modifiers that apply for wining or losing a melee.

Cavalry Rule

When both sides in a Melee consist entirely of Mounted Cavalry and Leaders, the casualties that would normally result are divided by 4. See the Design Notes for a discussion of this rule.

Bridge Damage

A full-hex bridge that is not occupied can be fired upon by Artillery and meleed against by Infantry and Cavalry. The purpose of this is to provide a means for destroying bridges in the game. The combat results from melees are only

applied to the bridge and not the attacking forces. When the strength of the bridge is reduced to 0, then the bridge cannot be crossed. To repair a bridge, see the Movement section of this manual.

To melee against an unoccupied bridge do the following. Move your units next to the bridge and then click on the bridge hex. Go to the Melee menu and select "Begin Melee". Red arrows will appear in the bridge hex. Select your units and then select "Add to Melee" in the Melee Menu. Click the "Resolve Melee" button and the units will attack the bridge.

Note that there are two kinds of bridges in the game: hexside bridges over creeks and full-hex bridges over water hexes. Hexside bridges cannot be destroyed. Only full-hex bridges can be meleed against or bombarded.

Melee Retreat

Defending units which lose a melee must retreat from the defending hex. By default, enemy units block possible retreat hexes. However, the following units when in a hex by themselves do not block the retreat and are instead eliminated when the defending units retreat into their hex:

- Leaders
- Supply Wagons
- Uncrewed or Spiked Artillery
- Limbered Artillery

Optional Artillery Capture

Under the optional **Artillery Capture** rule, it is possible to capture enemy artillery in a melee. With this rule, artillery that would by default be eliminated in retreat is allowed to be captured by the attacking side. While the captured artillery is stacked in the same hex with an enemy unit, it can be turned and fired. Fire in this case is automatically halved and the battery cannot be moved to another hex. The captured artillery unit can also be spiked during this time. If the artillery unit is recaptured by a melee, then the owning side can recrew the battery and use it normally. Captured, non-spiked, artillery units count full value towards victory conditions, while spiked captured artillery counts half value.

Optional Melee Resolution

Under the **Optional Melee Resolution** rule, during a player's normal turn, they are restricted to moving and firing only. After advancing the turn, they transition to a separate Melee Phase where they can conduct melees only.

When they advance the turn after conducting their melees, the game transitions normally to the opposing player’s turn. The intent of this rule is to prevent "blitzkrieg" style tactics while still preserving the flexibility of having movement and firing in one phase.

Main Features

Command

Command refers to the influence leaders have over the state of the forces under their command. Good use of Command will result in units being better able to move and fight, while Command failures will result in reduced capabilities.

Each Leader is assigned a default **Command Rating** ranging from **A** (best) to **F** (worst). This rating can be affected in a positive way by the Leader's commander (if he has one) provided the Leader is not Detached. At the beginning of each player's Turn, a **Command Test** is performed for all leaders currently on the map. The Command Test begins with the highest commanding leaders on the map and proceeds downward through the command hierarchy. Each Leader's Command rating is translated into a number by converting A to 6, B to 5, and so on down to F to 1. This number if compared to a random die roll from 1 to 6. If the Leader's number is greater than or equal to the die roll, the Leader has passed the Command Test for that turn. A Leader that has failed his Command Test will have his Command rating displayed in Yellow in the Hex Info Area (see the Main Program Help File). A Leader which passes his Command Test will pass a +1 **Command Bonus** modifier down to the Command ratings of his subordinate commanders (except to Detached Leaders). If a Leader receives a Command Bonus from his superior and passes his Command Test, his Command rating will be recorded as the higher number for that turn. For example, a Division leader with a nominal Command rating of C which receives a +1 Command Bonus from his superior and passes his Command Test, will have a Command rating for that turn of B. In addition, a Leader which passes his Command Test will pass a Command Bonus down to his subordinates which is one more than the Command Bonus he received. A Leader which fails his Command Test passes no Command Bonus to his subordinates regardless of any Command Bonus he had received.

Here is an example. Suppose the command hierarchy at a battle consisted of

- Army commander: Lt. Gen. Hood. Command Rating of C.
- Corps commander: Lt. Gen. Cheatham. Command Rating of C.
- Division commander: Maj. Gen. Cleburne. Command Rating of B.

- Brigade commander: Brig. Gen. Govan. Command Rating of E.

The Command Test begins with Hood whose number for the Command Test is 4. Suppose that the die roll is 3 and thus Hood passes his Command Test this turn. Hood passes a Command Bonus of 1 to Cheatham which gives Cheatham a number of 5 for his Command Test. Suppose that the die roll is 4 and thus Cheatham passes his Command Test giving him a Command Rating of B for this turn. Cheatham passes a Command Bonus of 2 to Cleburne which gives Cleburne a number of 6 (the maximum) for this turn. Cleburne must therefore pass his Command Test this turn and thus passes a Command Bonus of 3 to Govan which gives Govan a number of 5 (2 + 3) for his Command Test. Suppose that the die roll is 6 and thus Govan fails his Command Test and keeps his nominal Command Rating of E for this turn.

Recovery From Disruption

After all Leaders have been through the Command Test, the Leaders are then used to determine if Disrupted units become un-Disrupted that turn. Each Disrupted unit is assigned a value to be used for the **Test for Disruption Recovery** as follows:

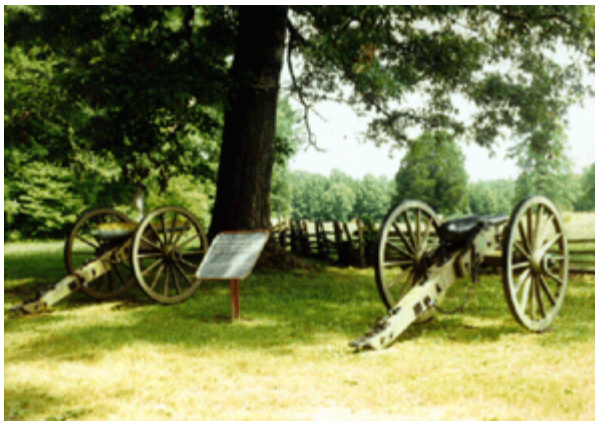
- An artillery unit is given a value equal to its current Morale rating.
- A Detached infantry or cavalry unit is given a value of 1.
- A non-Detached infantry or cavalry unit whose Leader has passed his Command Test is given a value of 1 plus the current numerical Command Rating of his commander. If the Leader failed to pass his Command Test, then the unit is given a value of 1.
- At night, the value given a unit is one less than normal.

For the disruption recovery test, if a random die roll is less than or equal to this assigned value, then the unit becomes un-Disrupted. Note that a Detached infantry or cavalry unit cannot recover from Disruption at night.

Night Turns

During Night turns, all Leaders and units have a Command value one less than normal. Thus, a Leader with a Command Rating of A would have a numerical rating of 5 during Night turns and a Detached unit would have a value of 0 in the Test for Disruption Recovery (and thus be unable to become un-Disrupted).

Morale



Morale refers to the mental state of the fighting units and the effect leaders have on restoring that state in the forces under their command. Units with good Morale and with inspiring leaders will fight better than units with low Morale or uninspiring leaders. Often a smaller force can overwhelm a larger one if it has superior Morale.

Each unit is assigned a Quality value ranging from **A** (best) to **F** (worst). This Quality value is the basis for determining the unit's current Morale. Each Leader is assigned a Leadership value ranging from **A** (best) to **F** (worst). This Leadership value determines the extent the leader will be able to affect the Morale of the units under his command.

When a unit suffers casualties due to combat, it will take a Morale Check to see if it Routs or becomes Disrupted at the end of the Phase. In addition, units with Fatigue level 900 that take a Fatigue loss also are required to take a Morale Check. The Quality value of the unit is used as the base value for Morale by converting A to 6, B to 5, and so on to F to 1. Modifiers are applied to this base Morale to obtain the final Morale value for the Morale Check.

- If the unit is stacked with a Leader, then 1 is added to the Morale.
- If the unit is Low On Ammo or Out Of Ammo, then 1 is subtracted from the Morale.
- If it is a Night turn, then 2 is subtracted from the Morale.
- If the unit has Medium Fatigue, then 1 is subtracted from the Morale.
- If the unit has High Fatigue, then 2 is subtracted from the Morale.
- If the unit has been fired upon Enfilade, then 2 is subtracted from the Morale.
- If the unit is Disrupted, then 1 is subtracted from the Morale.
- If the unit is in a hex with units from other brigades, then 1 is subtracted from the Morale.

The resulting Morale value is compared with a random Die Roll from 1 to 6, and if the Die Roll exceeds the Morale value, then the unit fails the Morale Check. A unit that fails the Morale Check during a Defensive Fire Phase becomes Disrupted, while a unit that fails the Morale Check during any other

Phase becomes Routed. If a Routed unit fails the Morale Check, it stays Routed, but also loses a number of men based on the amount the Die Roll exceeds the Morale, times 25 for Infantry and Cavalry, which is reported as **lost stragglers**. Unlimbered Artillery that is not at Maximum Fatigue is not subject to routing.

When a unit routs, all units in the same hex as the unit and all units in adjacent hexes to the unit must also take a Morale Check. If any units in adjacent hexes fail the Morale Check, then this process is carried over into hexes adjacent to those hexes.

Recovery From Rout

At the beginning of a player's Movement Phase, Rally Checks are performed on Routed units to see if they Rally. Routed units which Rally become Disrupted and are eligible to become un-Disrupted starting with the next turn. Again the Quality of the unit is the base value for Morale for the Rally Check. These Modifiers are applied to this value to result in the final Morale value.

- If the unit is stacked with a Leader of the same organization or a higher organization as the unit and if the Leadership rating of the Leader is higher than the Morale value, the Morale value is set equal to that rating. If the Leadership rating is already equal to the Morale value, then 1 is added to the Morale value.
- If it is a Night turn, then the Morale value of the unit is divided by 2 with fractions rounded up (for example 5 becomes 3).
- If it is a Day turn, then the Morale value may be affected by Corps and Army Leaders in adjacent hexes using the same process for Leaders in the same hex.

A random Die Roll from 1 to 6 is compared with the resulting Morale value, and if the Die Roll is less than the Morale value, the unit becomes un-Routed.

Fatigue

Fatigue refers to the detrimental effects combat has on the physical condition of the fighting units.

Fatigue values range from 0 (none) to 900 (highest). Within this range, they are further divided into Low Fatigue (0 to 299), Medium Fatigue (300 to 599), and High Fatigue (600 or higher). Leaders do not suffer from Fatigue. Fatigue values represent the *Combat Fatigue* of the unit and are not intended to represent the simple physical fatigue of being *winded* (see the Design Notes for more discussion on this distinction).

When units are fired upon, they may suffer a Fatigue loss as a result. Furthermore, units participating in Melee also suffer Fatigue losses as a result of combat. Units with a Fatigue level of 900 cannot have their Fatigue value increased further, but whenever a Fatigue loss is suffered by such a unit, they must take a Morale Check at the end of the Phase.

If a unit has Medium Fatigue, then

- 1 is subtracted from its Morale value during Morale Checks.
- 10% is subtracted from the melee strength when the unit participates in a Melee attack.
- 10% is subtracted from its fire value when the unit fires.

If a unit has High Fatigue, then

- 2 is subtracted from its Morale value during Morale Checks.
- 20% is subtracted from the melee strength when the unit participates in a Melee attack.
- 20% is subtracted from its fire value when the unit fires.

If a unit has Maximum Fatigue, then

- 40% is subtracted from the melee strength when the unit participates in a melee attack.
- 40% is subtracted from its fire value when the unit fires.

Artillery Rule

The Fatigue affects described above are doubled for Artillery Units. See the section on Design Notes for an explanation of this rule.

Recovering Fatigue

A unit may be eligible to recover Fatigue at the beginning of a player's Movement Phase provided it has not Moved, Fired, participated in Melee, or been Fired upon with any effect from the time of the player's previous Movement Phase. For each such unit a random value from 0 to twice the applicable recovery rate, determined by Parameter Data associated with the current battle, is subtracted from the unit's Fatigue value. See the Parameter Data Dialog in the Main Program Help File for the recovery rate values.

Supply

Supply refers to the ammunition that units have available to fire during the battle. A unit may become Low On Ammo or Out Of Ammo during the battle reducing or eliminating their ability to fire their weapons. Supply Wagons are used to maintain supply levels for the forces on the map. Each unit of strength of a Supply Wagon represents enough ammunition to resupply 10 men.

Each time an Infantry unit fires, there is a certain probability that this will result in a reduction in the unit's ammunition level (see the Design Notes for a discussion of why this can result in reduced ammunition levels in the first turn). The ability for Artillery units to fire is based on the Ammo Level for their side. If the Isolation Effects Optional Rule (see the Main Program Help File) is being used, then Artillery units can also become Low or Out Of Ammo when Isolated.

The probability chance that a unit will suffer a loss of ammo while firing is determined by Parameter Data.

A unit that is Out Of Ammo cannot fire again until it is resupplied. A unit that is Low On Ammo can only fire Defensive Fire (see the Design Notes for why this is the case). Being Low or Out Of Ammo affects the Morale of the unit.

Units can become resupplied at the beginning of the player's Movement Phase provided they are not Routed and they can trace a path no longer than 5 hexes long which does not go through enemy units or empty hexes in their Zone-Of-Control to a friendly Supply Wagon. This resupply will reduce the Strength of the Supply Wagon by 1 unit for every 10 men in the Unit. Supply Wagons that are reduced to a Strength of 0 are automatically removed from the map.

Isolated Units

When the Isolation Effects Optional Rule is in effect, then at the beginning of each turn, a test is performed on each unit for the current player to determine if the unit should be flagged as being Isolated. The test attempts to trace a line of hexes from the unit to one of the following hexes:

- Any hex on the edge of the map.

- Any Blocked hex.
- Any hex containing a Supply Source.

This line of hexes must not pass through an enemy Zone-Of-Control that is not occupied by a friendly unit. If no such line can be traced, then the unit is marked as being Isolated. Isolated units defend in Melee at ¼ strength. This represents the tendency of surrounded units to surrender.

Combat Results

A common combat results calculation is used for both fire and melee results. The combat results calculation is based on four parameters: a combat value, a modifier, a **Low Combat Value** (LCV) and a **High Combat Value** (HCV). For fire combat, the combat value is the adjusted fire value of the firing units. For melee combat, the combat value is the adjusted strength of the opposing side. The given modifiers are applied to the given combat value to arrive at the effective combat value. The Low Combat Value and High Combat Value are the extreme possible casualties resulting from a base-line combat value of 1000. The effective combat value is used to scale these accordingly resulting in low and high possible casualties. Finally a random value is selected between the low and high casualty values to arrive at the final combat result.

For example, given a combat value of 400, a modifier of 25%, a Low Combat Value of 5 and a High Combat Value of 25, the effective combat value would be 500 (= 400 + 25%). This would be ½ of the base-line combat value of 1000. Thus the low casualty value would be 2.5 (= 5 / 2) and the high casualty value would be 12.5 (= 25 / 2). The resulting casualty value would be randomly generated between 2.5 and 12.5 for this combat. Finally, based on the fractional part of the casualty value, it is randomly rounded up or down. For example, if the casualty value was calculated to be 3.7, then 30% of the time this is rounded down to 3 and 70% of the time is rounded up to 4.

Artillery losses resulting from enemy artillery and infantry fire is calculated on the basis of 1 gun = 25 men. Combat losses less than 25 men result in a probability of a 1 gun loss proportional to the value. Thus a combat loss of 5 men applied to an artillery unit would result in a probability of 5/25 = 20% that a one gun loss would occur.

Fatigue results are calculated as random values between the casualty value and 3 times the casualty value.

When Morale Checks are applicable, they are determined based on a probability using the given loss as:

$$loss / (loss + 25)$$

Thus a unit that takes a loss of 25 men has a 50% chance of requiring a morale check and a unit that takes a loss of 100 men has an 80% chance of requiring a morale check.

When the optional rule **Alternative Calculation** of combat results is chosen for fire or melee results (see the Main Program Help File), then the resulting casualty value is based on the average of two default casualty calculations. This produces values which are more likely to be in the midrange of the casualty interval rather than uniformly distributed.

Additional Features

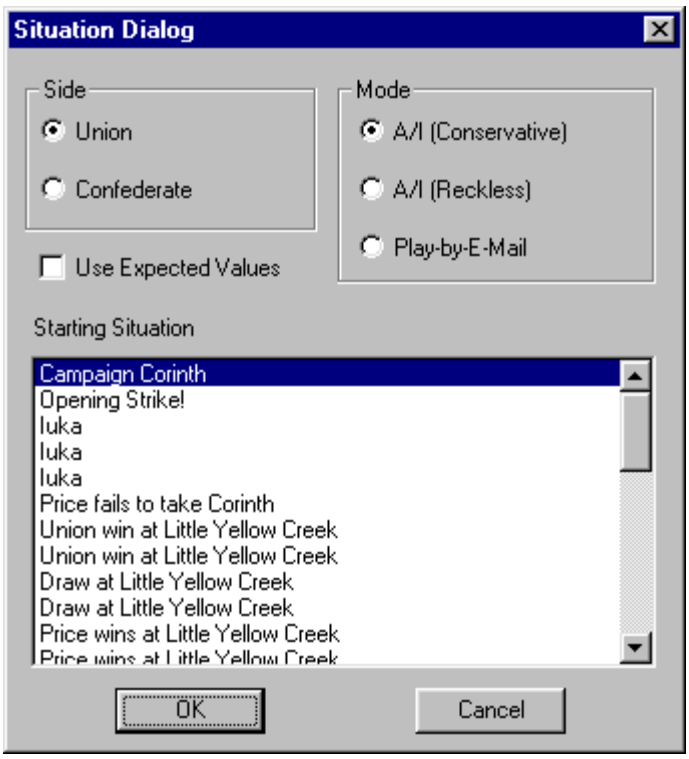
The Campaign Game

The **Campaign Game** links together individual battles and their outcomes to form a complete campaign. To being or continue a campaign game, run the **Campaign Front End** from the program group of the game.

A campaign consists of a series of **Situations**. Each Situation presents both sides in the campaign with a list of possible **Choices**. Based on the selections made among these choices, a particular **Battle** will be fought by the two sides. Depending on the **Outcome** of the battle, the campaign will branch to another Situation in the campaign, or possibly to the campaign **Conclusion**.

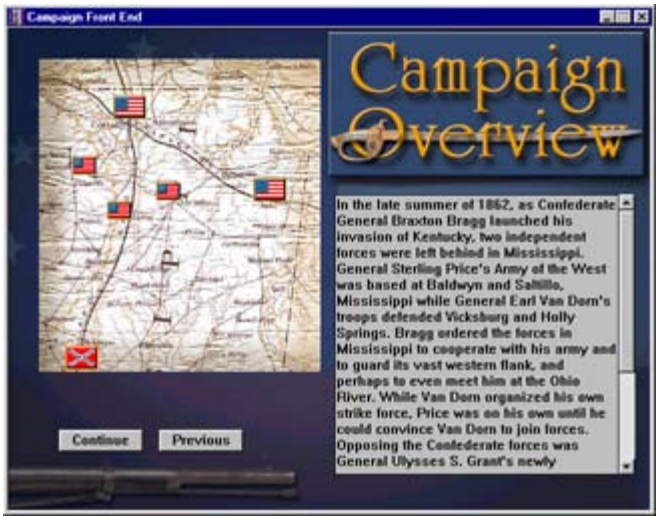
The Campaign Front End begins by asking you if you want to start a new campaign or continue an existing one. Of course, the first time you run the Front End, you'll select that you want to start a new campaign. Depending on the game, here may be one or more campaign games included. In addition, you can create new campaigns by using the **Campaign Editor**.

When you start a new campaign, you will be asked to specify a filename for the campaign. Note that campaigns are stored in files with the extension `cpf`. You should use a name that is descriptive of the campaign so that you can have several campaigns going at one time and keep track of them.

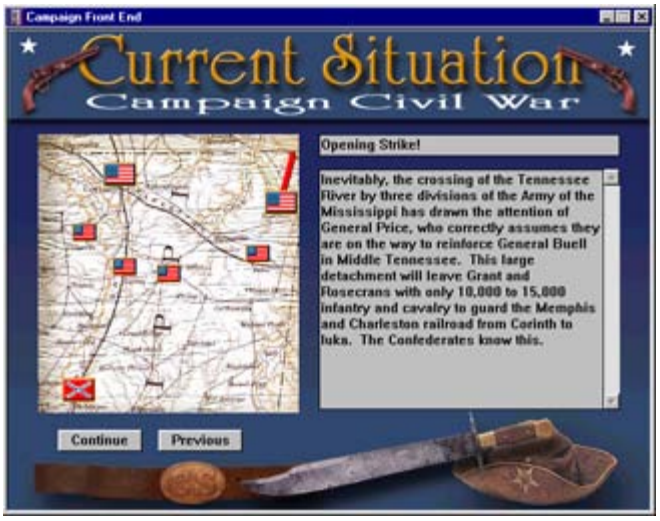


When you start a new campaign, you will be prompted by the **Situation Dialog** to pick the side you want to play and other settings. There are three possible Modes you can select. If you select **A/I (Conservative)** then you will play against the computer and the computer will be making optimal choices during the campaign. If you select **A/I (Reckless)**, you will also be playing against the computer, but in this case, the computer will be making random choices during the campaign. Often this results in more interesting results, although not necessarily the most competitive play. If you select **Play-By-E-Mail**, then you can play the campaign against a human opponent using e-mail to send the turns back and forth. During the campaign, you normally will be transferred to the Main Program to fight battles. The victory outcome of these battles will determine the next situation you encounter in the campaign. If you select **Use Expected Values**, then instead of fighting each battle using the Main Program, an average victory outcome will be used to immediately branch to the next situation in the campaign. You will use this option, when you want to very quickly jump from situation to situation in the campaign without having to fight each battle in detail. Finally, you can select from a list of situations in the campaign. Normally you will select the first situation, as this is the starting point for the campaign, but you also have the option of selecting an intermediate one if you wish to start the campaign somewhere in the middle.

Each campaign begins with an overview. This overview will describe the campaign setting and displays a map of the area over which the campaign will be fought. When a campaign game is played by two human players, both players get to see this screen.


Campaign Front End
Campaign Overview
In the late summer of 1862, as Confederate General Braxton Bragg launched his invasion of Kentucky, two independent forces were left behind in Mississippi. General Sterling Price's Army of the West was based at Baldwyn and Saltillo, Mississippi while General Earl Van Dorn's troops defended Vicksburg and Holly Springs. Bragg ordered the forces in Mississippi to cooperate with his army and to guard its vast western flank, and perhaps to even meet him at the Ohio River. While Van Dorn organized his own strike force, Price was on his own until he could convince Van Dorn to join forces. Opposing the Confederate forces was General Ulysses S. Grant's newly
Continue
Previous

At the beginning of each Situation, a screen is displayed identifying the Situation, showing the various forces involved, and describing the Situation. Both sides of the campaign get to see this screen.


Campaign Front End
Current Situation
Campaign Civil War
Opening Strike!
Inevitably, the crossing of the Tennessee River by three divisions of the Army of the Mississippi has drawn the attention of General Price, who correctly assumes they are on the way to reinforce General Buell in Middle Tennessee. This large detachment will leave Grant and Rosecrans with only 10,000 to 15,000 infantry and cavalry to guard the Memphis and Charleston railroad from Corinth to Iuka. The Confederates know this.
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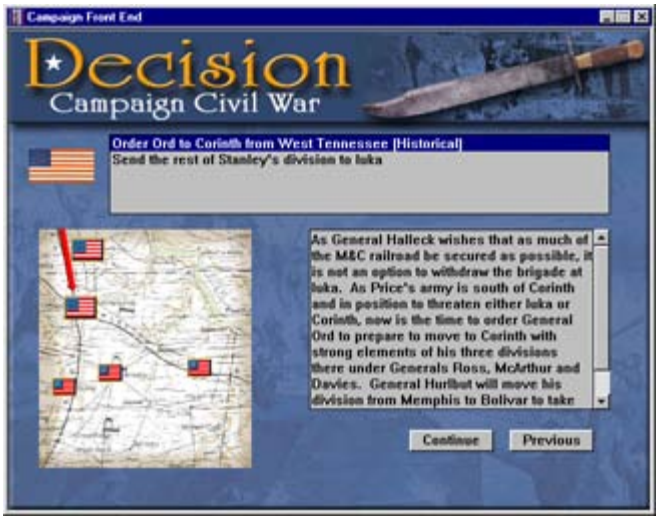
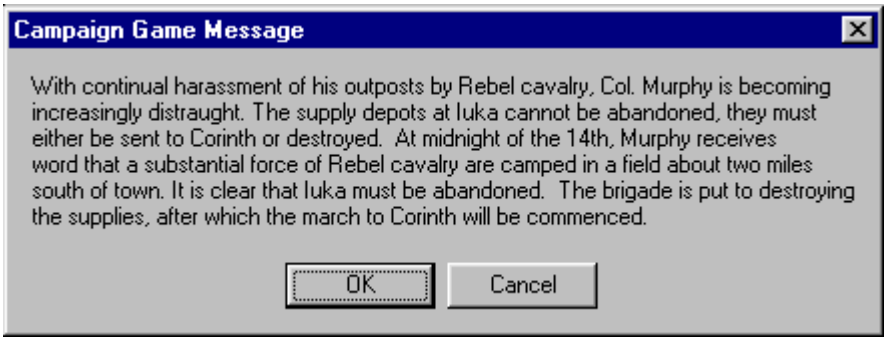
The Decision screen is where you make your choice about how to conduct the campaign. You will be given a list of choices at the top of the screen. As you click on each choice, a description of that choice is displayed and the map is updated to illustrate that choice. You should keep in mind that in general, no situation has a "best" choice. The best choice will be determined by the corresponding choice made by your opponent, something you won't know until both sides have decided. So you should weigh the possible outcomes you feel are associated with each choice, and decide which one you wish to pursue in that situation. Note that each side in the campaign sees a different screen at this point. Each side only sees the choices for their side and will be unaware of the choice made by the other side.


Campaign Front End
Decision
Campaign Civil War
Order Ord to Corinth from West Tennessee [Historical]
Send the rest of Stanley's division to Iuka
As General Halleck wishes that as much of the M&C railroad be secured as possible, it is not an option to withdraw the brigade at Iuka. As Price's army is south of Corinth and in position to threaten either Iuka or Corinth, now is the time to order General Ord to prepare to move to Corinth with strong elements of his three divisions there under Generals Ross, McArthur and Davies. General Hurlbut will move his division from Memphis to Bolivar to take
Continue
Previous

Once both sides have made their choices, the resulting battle is determined and each side will get a message describing the battle. When Use Expected Values is selected, this message will have a Cancel button in addition to an OK button. If you select the OK button, then the Expected Value of the battle will be used to determine the campaign branching. If you select the Cancel button, then the game will transition to the Main Program so that the current battle can be fought in detail.


Campaign Game Message
With continual harassment of his outposts by Rebel cavalry, Col. Murphy is becoming increasingly distraught. The supply depots at Iuka cannot be abandoned, they must either be sent to Corinth or destroyed. At midnight of the 14th, Murphy receives word that a substantial force of Rebel cavalry are camped in a field about two miles south of town. It is clear that Iuka must be abandoned. The brigade is put to destroying the supplies, after which the march to Corinth will be commenced.
OK
Cancel

In general, each battle outcome will cause the campaign to branch to the next Situation in the campaign. However, depending on the outcome and the Situation, the campaign will eventually branch to a terminating situation. Here, the overall outcome of the campaign is determined and described.

Campaign Front End
The Army of the West is stunned by the defeat and the loss of so many irreplacable veterans and their equipment. The retreating officers and men, feeling they have been badly used, are greatly demoralized. In fact, many dispirited soldiers fall out of the ranks during the retreat and those not captured melt away into the Alabama and Mississippi countryside. Due to this decimation of the once powerful Army of the West, Van Dorn realizes there is no longer enough manpower in the theater for offensive operations and cancels his own proposed
Continue
Campaign Conclusion
The seige of Cornith

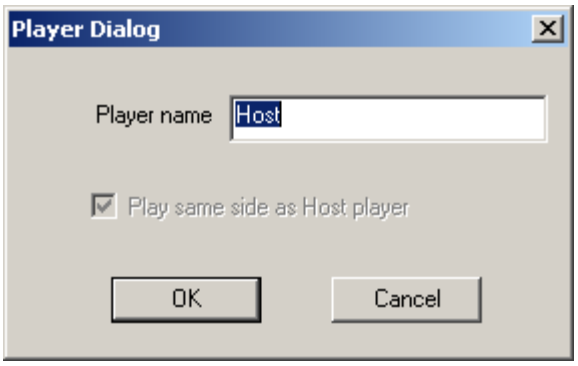
When you play a campaign using Play-By-E-Mail, then you will receive messages at various times indicating that the campaign file is ready to be e-mailed to your opponent. You should mail your opponent the `cpf` file containing the campaign at this point. Note that this single file contains all information associated with your game and that no other files need be included.

Summary of Campaign Play Modes

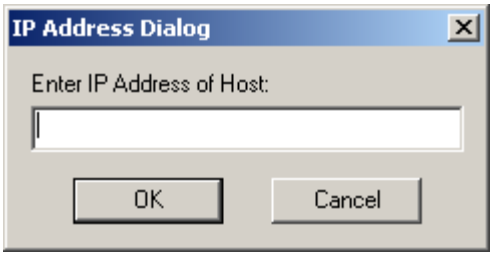
There are a wide variety of ways that campaigns can be played. For the briefest possible campaign, play against the computer (A/I play mode) and select "Use Expected Values". In this way, a complete campaign can be completed in a manner of minutes. For a longer game and more detail, select "Use Expected Values", but then select a battle to fight in detail by selecting Cancel when the encounter message is displayed. The time required to finish the battle can by varied by choosing Manual or Automatic play mode within the battle itself. In this way, a complete campaign can be completed in an hour or so. Then, for a longer campaign, skip the "Use Expected Values" option and play each battle in detail and in Manual mode. This type of campaign will require a couple of hours to complete. Next, you can play a campaign using Play-By-E-Mail. Note that you can choose the "Use Expected Values" option when playing under PBEM if you just want to see how your campaign choices play out against a real opponent. This approach would require a day or more to complete a campaign. Again, you can choose the "Use Expected Values" option, but then Cancel this option at the time of a battle to play out the battle in detail. In this way, a PBEM campaign would be about the same length of time as a normal PBEM battle if you selected a single campaign battle to play in detail. Finally, to get the longest possible campaign, you would skip the "Use Expected Values" option which could result in a campaign lasting a very long time. In summary, a campaign can be played in a manner of minutes, days, or even years in the extreme cases.

Network Play

This section describes the details associated with multi-player **Network Play**. Microsoft's Direct Play is used for this purpose. The TCP/IP protocol is used to connect the computers being used. If you are using a firewall to connect to the Internet, you must configure it before you can connect using Direct Play. Information on how to do this can be found in this Microsoft technical article: DirectX: Ports Required to Play on a Network.



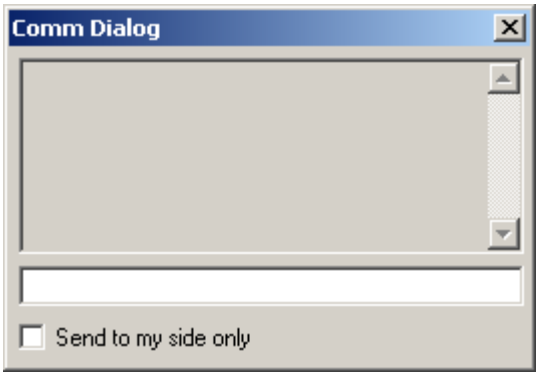
The Player Dialog is displayed so that each player can specify their name and to specify if they want to be on the same side as the Host player or the opposing side.



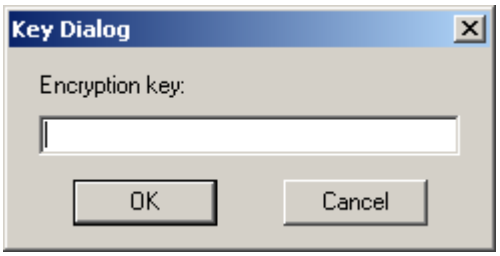
The Caller will be prompted to enter the IP Address of the Host computer. The Host player must determine their IP Address and communicate this to the other players.

One way for the Host player to determine their IP Address is to perform the following steps:

- Click on **Start**, then **Run**, and enter **cmd**.
- In the window that opens, enter **ipconfig**.



Once a connection has been established, the Comm Dialog will appear and allow both players to communicate with each other. You can type messages in the area at the bottom of the Comm Dialog and press Return to send them. All messages are displayed in the top area of the Comm Dialog prefaced by the name of the player sending the message. In Multi-Player Network Play games, you can limit the sending of the message to players of your side, by selecting the option at the bottom of the Comm Dialog.



If you are the first Caller of the opposing side, you will be prompted to specify an Encryption Key to be used to encrypt the battle file on the Host computer. This encryption will prevent your opponent from trying to access the battle file in your absence. Be sure to remember your Encryption Key and specify it exactly the next time you open an existing battle or else a read error will occur. If you trust your opponent, it is OK to leave the Encryption Key blank.

Multi-Player

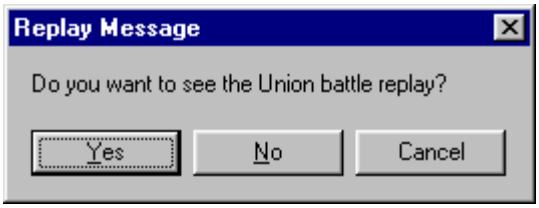
In general, both sides of a Network game can have more than one person assigned to them. The Host player and the first player to connect playing the opposing side, will be the **Commander** for their respective sides. By default, the Commanders control all units for their side. Additional players on each side can be assigned commands by the Commander. Each player can only move and fire units under their command. The Multi-Player Dialog described in the Main Program Help File describes the actions used to assign commands to players and to manage Multi-Player features.

Play By E-Mail

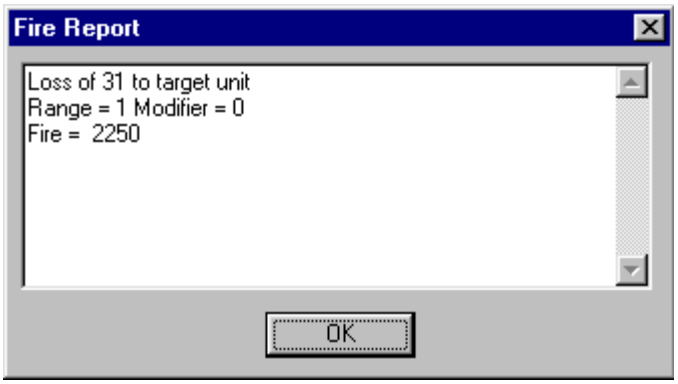
This section describes the details associated with Play-By-E-Mail (PBEM). PBEM is initiated either from the Campaign front-end or through the Play-By-E-Mail option of the Modes Menu (see the Main Program Help File).

When a game is started under the PBEM option, the player starting the battle will be prompted with the New Scenario Dialog (see the Main Program Help File) to select the side they wish to play, the Fog of War option, any change to the Advantage value, and Optional Rules. When control of the game passes to the opposing player, the main program will save the PBEM game in a file with extension `bte` and notify the player that the file can now be E-mailed to their opponent. The player should send the `bte` file either Zipped up or as an attachment in an E-mail.

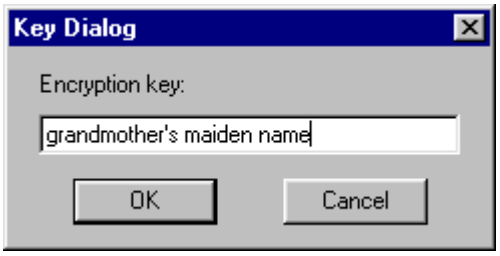
When the other player receives the E-mail, it is essential that they copy the `bte` file into the appropriate game folder. By default, this game folder is "C:\Program Files\HPS Simulations\name" where "name" is the name of the game, but this can be changed during installation. Once the `bte` is copied, the player can start PBEM mode either from the File Selection Dialog (see the Main Program Help File), or through the PBEM option of the Modes Menu (see the Main Program Help File).



When the player opens the PBEM file, they will be prompted to view the battle replay. If they notice that the replay is not for the opposing side, they have opened their own PBEM file in error and should immediately select **Cancel**. Otherwise, they can select **Yes** or **No** to either view the replay or advance directly to their turn.

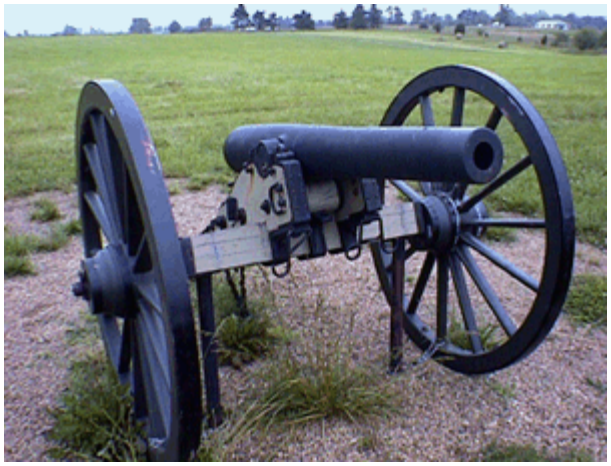


During the battle replay, combat results are reported in a dialog. Select **OK** to close the dialog and continue normally. If you select **Cancel**, the replay will continue but no subsequent combat results will be reported. Pressing the Escape (**Esc**) key will terminate the replay.



When a PBEM battle is saved with the PBEM Encryption Option enabled (see the Settings Menu in the Main Program Help File) or if the file has already been encrypted by the opposing player, then the player will be prompted for an Encryption Key. On subsequent turns, the identical key must be entered by the player in order to read the file. Note that a PBEM battle can be encrypted even after play has begun, but once encrypted, it cannot be converted back into an un-encrypted form.

Design Notes



This section provides explanation for certain game features.

Why can't you use the Undo Movement function of the Command Menu when Fog of War is in effect? If this were allowed, you would be able to send out units on multiple "scouting" missions with the option of returning them to their starting location and thereby determining unfair information on the location of enemy units. You might say that the Undo should only be disabled if the units being moved run into unknown enemy units, but even knowing that there are no enemy units in a certain direction is unfair information if the moving player is allowed to undo the move.

Why does it take so long for units to recover from Fatigue? In the game, Fatigue is used to represent combat fatigue, not the physical state of being *winded*. As such, the physical effects of combat fatigue are felt long term and do not wear off through simple rest. In many Civil War battles, the end of the battle was determined by fatigue and not by losses. In larger battles, commanders had to be careful to rotate their fighting units and not commit any one force too long to battle. Having higher Fatigue recovery rates would permit the unrealistic ability for commanders to rest units for short periods of time and then recommit them to battle, something that was not common historically.

Why aren't the Optional Rules called Advanced Rules? The primary reason for having Optional Rules is two fold. First, Optional Rules are intended to provide some variety to game play. As such, they are intended to put a new twist on familiar situations and keep the game interesting. Second, Optional Rules are intended to provide an outlet for disagreements over how certain issues are to be approached. That is, rather than debate an issue to death, an Optional Rule is often provided so that differing viewpoints are supported in the game, even if they are not agreed to by 100% of the user population. Given this intention, Optional Rules should never be confused with Advanced Rules which are intended to provide more realism or detail but at a sacrifice of playability or simplicity. An Optional Rule could conceivably reduce realism or detail as long as it provided some interesting variety into the game

or provided a useful simplification that improved playability under certain circumstances.

Why isn't the Victory Points for Leader Casualties Optional Rule a default rule? Wouldn't killing Grant be a significant event for the Confederate player? Every rule must be evaluated for what it motivates players to do. In this case, awarding points for leader casualties motivates the player to hide his leaders away from the battle to avoid losing Victory Points. For example, the player would never risk a good leader like Lee in the front line for fear of losing Victory Points and would keep him carefully hidden away in some safe place. Conversely, players would be motivated to focus their fire primarily on hexes containing leaders in hopes of picking up Victory Points. Having this rule as a default rule would skew the battles away from the historical outcomes in a way that would detract from the games as learning tools. Given the tactical nature of the battles, losing Lee for example is felt even in the absence of this rule since his replacement, and all replacements in the line of command, will generally be of lesser quality than the original leader and thus this will have a detrimental effect on the Confederate Army.

I just had my entire army rout away! The default routing logic is bogus! The routing logic causes the rout of a single unit to sometimes spread to adjacent units and so forth in a way that can have a major effect on a force. Establishing the correct balance in this logic is a matter of interpretation. If you have a large rout occur, check the following factors that affect morale. Did your units have High Fatigue? Were they Low or Out of Ammo? Were they of mediocre quality? Was it a Night turn? Experience has shown that game players conduct their attacks with far greater aggressiveness than was ever shown on the actual battlefield. Historically, leaders were very cautious in the commitment of their troops and were careful not to keep units in battle for too long for fear they would not hold. If you have just had D quality units, low on ammo, with Fatigue level 900, rout during a Night turn, don't think that this was an unrealistic event.

Why have the Isolation Optional Rule which causes Isolated units to defend in melee at 1/4 strength? This rule is intended to have two effects. Commanders were always very cautious of their flanks. They often withdrew from a position before they had been overwhelmed simply because their flanks were threatened. This rule is intended to motivate the player to think in these terms. Secondly, units that had been surrounded would often surrender and not fight to the death. The 1/4 modifier to defending strength is intended to reflect the tendency of the Isolated units to surrender when pressed.

Why isn't the Partial Retreats Optional Rule a default rule? Retreats from a hex by units that have just lost a melee are necessarily very chaotic events.

Certainly with a breakdown in command and morale, it would not be possible to find some optimal displacement of units that would just fit in the retreating hex. A good analogy would be a burning building where quite often a large number of people perish even though there are exits readily available. The dynamics of this situation is known as "choking" and results in greatly reduced flow through openings. Based on this, there is justification for concluding that obstructions to their retreat would often result in the surrender of the defeated troops rather than some optimal reduction.

I had a unit lose ammunition on the first turn of the game. That's ridiculous! Is it? Having a full complement of ammunition was never guaranteed in any battle. While most often, a unit had enough ammunition to ensure the ability to fight for some time, breakdowns in command and organization often resulted in ammunition problems. Adding an ammunition level to each unit in the game would simply increase the micromanagement necessary to play the game without adding any benefit and would in fact detract from the game by including information that could hardly be known by higher level commanders.

I don't understand the Low Ammo rules. Why can units with Low Ammo fire Defensive Fire and not the Offensive Fire? Do they have bullets or don't they? The distinction here is based on the fact that units low on ammunition will start to save their shots and not use them unless absolutely necessary. Since Defensive Fire is the point at which defending units get to fire on their attacker, this would be a good example of when units would use their precious ammunition. Not allowing Offensive Fire is the point at which the lack of ammunition is applied and thereby motivates the player to not use these units for attack. The end result in the game is a good one causing a reduction in aggressive ability by units low on ammo but retaining the ability for units low on ammo to deliver a good blast when threatened.

Can you explain why units that have not fired Offensive Fire receive a 10% melee bonus in the same turn? Given the slow reload rate of Civil War weapons, leaders often found that when units were allowed to fire during an advance, they were reluctant to continue advancing with their weapons unloaded. This often resulted in the order to units that they not fire during a charge but rather advance without stopping. The additional vigor with which the advancing units conduct their attack is the basis for the modifier.

I melee attacked an unsupported Artillery battery and was defeated. This can't be right. Melees have two possible outcomes. In the first, the attacker "wins" the melee and displaces the defending units from the hex. The second outcome results in the defenders retaining the defending hex. A failure of the attacking units to take the defending hex should not be interpreted so much as

a "victory" for the defending units, but rather simply a failure of the attacking units to conduct a successful melee. In the case of a melee attack against Artillery, a failure to take the defending hex means that the attackers had so much trouble conducting the charge or were so ineffective in their charge, that the defending hex could not be considered taken. If you wish, you can consider the melee in this case to be ongoing, although this is not part of the game engine. The bottom line is that no melee can be guaranteed to be an automatic "victory" unless the defending hex is free of fighting units.

How come PBEM Encryption is just an option? Doesn't everyone want to prevent PBEM cheating? There's one very important thing that you should realize about PBEM cheating: it cannot be prevented. While encryption of the PBEM file and the use of PBEM passwords does deter the "casual cheater", it does not and cannot prevent all cheating. Why? The problem with attempting to encrypt the PBEM file is that the code required to encrypt and decrypt the file plus, most importantly, the encryption key is located in a very handy place to the would-be cheater: the main program. A hacker of modest abilities would be able to determine everything they needed to know by inspecting the main program object code and very quickly come up with a program to encrypt and decrypt PBEM files. Would the person you're playing go to that much trouble? Does the person you're playing know someone who would? And finally, don't think that there is any way to prevent someone from replaying the PBEM battle until they know far more than they should about your position and have found the optimal fire and combat outcome as well. Write something to the registry? Hide a "secret" file on their hard drive? Come on, those are so obvious that even someone with only a small amount of motivation would be able to circumvent them. So think about cheating as a layered problem:

- Is the person you're playing with familiar to you and someone you trust? Don't bother with encryption, it just gets in the way.
- Are you wanting to use passwords just so you don't inadvertently open the file during your opponent's turn? Sure, use encryption for this.
- Are you playing a good natured competition with someone who is probably not sufficiently motivated to hack the encrypted file? Encryption will work here too.
- Are you playing someone you don't trust and need some way to stop them from any form of PBEM cheating? Don't bother. You'll drive yourself nuts trying to figure out if they've somehow hacked the encryption to get a win.

Under Manual Defensive Fire, why can't an Infantry unit change to Line formation after it has moved? Line and Column formations are a trade-off relative to each other. While movement is more efficient in Column formation, units can only fire when in Line formation. If units were allowed to move in Column formation during a Movement Phase and then change into Line formation at the end of the phase, it would allow units to unfairly use Column

formation for movement without suffering any of the adverse affects from using this formation.

What is the justification for the Quality Fire Modifiers Optional Rule? Are you saying that A and B units are sharpshooters? No, this is not the intent of the rule. The rule is meant to reflect the more efficient and higher rate of fire that higher quality units were capable of, and the corresponding lower rate of fire that lower quality units generally had. Units with experience were able to keep their guns unjammed during a hot battle, even to the point of having slightly smaller caliber bullets on hand to use after their guns had become clogged from burnt gunpowder. Lower quality units could not sustain high rates of fire due to their inexperience and poor training. They also had poor habits such as sometimes inadvertently firing their ramrods at the enemy and thus reducing their ability to fire. For the same reason, higher quality units were more proficient with the use of the bayonet and thus the justification for the Quality Melee Modifiers Optional Rule.

I think artillery batteries that change facing should be allowed to fire Offensive Fire. All they are doing is turning the guns to a new direction which hardly takes a full 20 minutes. In general there is more to a change of facing by an artillery battery than turning the guns. In fact, the 120 degree field of fire given to units and artillery in particular represents such simple redirection of the guns to a new direction. Beyond this arc, changes cannot be achieved simply through turning of the guns. Simply turning the guns and delivering a volley outside of this arc would end up shooting into the backs of your fellow battery mates. Therefore, changes of facing by batteries would involve moving the guns and caissons to new positions which, although perhaps not requiring a full 20 minute turn, would be more involved than it might appear. The affect of this restriction on the game is also a good one since it makes artillery vulnerable to flanking maneuvers, something that was true if general.

Why can't Disrupted units conduct a melee attack? The state of Disruption in the Civil War Campaign games represents a state of disorder caused by combat. The effectiveness of a Disrupted unit is considered diminished and this affects movement, firing, and in this case melee. For melees, Disruption is meant to include effects such as being pinned under fire and a general state of confusion resulting from combat. Historically these conditions most often resulted in the withdrawal of the attacking units or the taking of cover by the attacking units. In either case, a charge into the enemy position was not possible. Multiple accounts exist describing how charges were made again and again against enemy positions only for the attacking units to fall back to their original positions without success. Despite the boldness of their leaders, it just was not possible to bring the fight to the enemy when the attacking troops were sufficiently affected by defensive fire. In the game, the effect of

this rule will be twofold. First, attacking units, despite their success, will often become Disrupted and therefore the effectiveness of their subsequent fighting will be diminished. Second, it motivates the keeping of a reserve so that units in good order are available at key points in the battle. Both of these effects are good for the game.

I've noticed that the +1 extra MP cost of moving into an enemy Skirmisher Zone never prevents the movement. That is, if it would normally take 3 MP to move into a hex and a unit only has 3 MP left, then the presence of an enemy Skirmisher Zone in that hex doesn't prevent the movement. Isn't this a bug? If the program prevented the movement, then the controlling side would know that there was an enemy Skirmisher Zone in the destination hex and thus that there was an enemy unit in the vicinity. However, the opposing side would have no indication that a unit from the other side was nearby. Thus the side that had deployed Skirmishers would have less information than the side that had not.

Why the double Fatigue firing effects on Artillery? Based on experience, players found that it was just too unrealistic for Artillery to remain under enemy fire turn after turn accumulating Fatigue and perhaps the occasional loss, but not really suffering enough to motivate the player to withdraw the battery. Surely as a result of this fire, the battery, while perhaps not losing cannons, is suffering damage to its crew and equipment that has a detrimental effect on its ability to fire. This attrition to the ability of the battery to fire is the basis for the increased Fatigue firing effects.

Why are melee casualties for mounted cavalry vs. mounted cavalry reduced from normal? Based on several historical accounts, it appears that while mounted cavalry clashes were very colorful events with much bravado and swinging of sabers, that compared with the number engaged, casualties resulting from these encounters were generally very light. Indeed entire brigades of cavalry could charge and charge again resulting in fewer than 20 casualties on either side. The battle at Brandy Station serves as a prime example of such low casualties and playtesting has shown that in the absence of such a modification, cavalry casualties become unhistorically high.

Tactics

This section contains information that the player may find helpful in playing the game. The key issue is to understand the particular tactics associated with the Civil War battles. During this time period, the linear tactics that had evolved during the 18th century were further refined through the use of artillery and cavalry. This results in a special situation of having three very unique arms: infantry, artillery, and cavalry, each with strengths and weaknesses. Understanding how to employ each of these to their maximum effect is the key to being a good Civil War commander.

- **Maintain an effective reserve.** You will need a good reserve late in the battle to either provide the "knock-out punch" against the enemy, or to save your own army from destruction. It is a good idea to keep either a Brigade from each Division, or a Division from each Corps, in reserve to have some forces you can deploy as needed.
- **Be prepared for routs.** As your forces participate in combat, their fatigue will increase and ammo problems will develop. Keep an eye on the condition of your forces as these problems can eventually cause some very extensive routing. Be prepared for this eventuality and have some fresh forces in reserve that you can commit.
- **Avoid frontal attacks against prepared positions.** The firepower of Civil War weapons was such that frontal attacks across open ground or against prepared positions most often failed. This tactic will only have a good chance of succeeding if you are attacking forces that have been worn down by previous fighting. If this is the case, then you may be able to cause a break in their line and the attack may succeed.
- **Likewise, avoid frontal attacks against positions having good artillery.** Like the fellow said at Shiloh: "There ain't no good way of charging artillery". Artillery is best attacked from the flank where you may be able to approach it without being fired upon and successfully melee against it. If you make a frontal attack against artillery, then you will find out just how effective canister charges fired from large bore cannons can be.
- **Use your cavalry for scouting and screening of your flanks, but avoid using them as "mounted infantry" unless they are equipped with fast**

firing weapons. Cavalry units are generally too small and too precious to use them for real fighting against enemy units other than other enemy cavalry. Only if you have cavalry such as the Union cavalry with fast firing weapons will you be able to hold your own.

- **Use skirmishers in obstructed terrain to scout for the enemy and to protect yourself from enemy attacks.** Particularly when the terrain consists of forests and other obstructed terrain, you can use skirmishers to determine the location of the enemy before you actually encounter them. This will keep you from suffering large number of casualties from enemy fire. Your skirmishers will also slow the enemy advance down and give you time to prepare for it.
- **Watch your flanks, especially when the Isolation Optional Rule is in effect.** The most effective way of defeating an enemy force is to surround them. Historically when this happened, such as at the Hornet's Nest at Shiloh, the surrounded forces would surrender rather than fight to the death. Even individual units need to have flank support as they may be cut off using enemy Zones-of-Control, and unable to save themselves. The good use of linear tactics will protect your forces and allow them to use their firepower to maximum effect.

Credits

Developer: John Tiller

Artist: Joseph, The Genius, Amoral

Graphics Coordinator: Mark Adams

Background Music: Thomas Hook (Vocals by Jennifer Davis. Vocals by Katheryn Claverie for Campaign Peninsula. Vocals by Lee Hook for Campaign Vicksburg)

Campaign Maps: Michael Avanzini

Campaign Overland

Scenario Designers: John Ferry & Ken Jones

Scenario Maps: Doug Strickler & John Ferry

Playtest Coordinator: Rich Hamilton

Playtesters: Ken Miller, Don Vandergriff, Rusty Hodgkiss, Mark Nelms, Ernie Sands, Pat Thompson, Chet Guiles, Bob Weir

A/I Scripting: Special thanks to Ken Miller and Rusty Hodgkiss for the A/I scripting work on many scenarios.

Campaign Chancellorsville

Scenario Design: Rich Walker

Playtesters: Aleksander Krolikowski, Rich Hamilton, John Ferry, Mike Mihalik, Ken Miller, Kris White, Thomas Breen

Campaign Antietam

Scenario Design: Rich Walker

Battle Maps: Doug Strickler

Playtesters: Aleksander Krolikowski, Rich Hamilton, John Ferry, Lee Hook, Doug Strickler, Rich White, Ernie Sands

Campaign Chickamauga

Scenario Design: Rich Walker

Playtesters: John Ferry, Rich Hamilton, Aleksander Krolikowski, Tony Malone, Ken Miller, Phil Roubaud, Ernie Sands, Brett Schulte, Rich White

Special Recognition: Leader picture #180 is *Major George Thomas Downs* from Marion County, Virginia, an ancestor of Judy Amoral. She has kindly given us permission to use his photo for one of the officers for who we can find no actual picture.

Campaign Atlanta

Scenario Design: Rich Walker

Additional Research: Jim Dunnam

Playtesters: Jim Brammer, Rich Hamilton, Aleksander Krolikowski, Tony Malone, Sam Orlando, Ernie Sands, Brett Schulte, Rich White

Campaign Vicksburg

Scenario Design: Lee Hook, Drew Wagenhoffer

Background Music: Thomas Hook and Lee Hook.

Playtesters: Lee Hook, Drew Wagenhoffer, Mark Adams, Brett Schulte, Tom Hook

Campaign Shiloh

Scenario Design: Rich Walker

Getting Started: Adam Parker

Playtesters: Rob Bottos, Brett Schulte, Rich Hamilton, Tony Malone, Lee Hook, Tom Hicks, Doug Strickler

Campaign Peninsula

Scenario Design: Drew Wagenhoffer

Getting Started: Adam Parker

Playtesters: Mark Adams, Doug Strickler, Brett Schulte

Campaign Gettysburg

Scenario Design: Doug Strickler

Getting Started: Adam Parker

Playtesters: Pat Blackman, Jim Dobbins, Lee Quantrell, Brett Schulte, Drew Wagenhoffer, Rich Walker

Campaign Franklin

Scenario Design: Rich Walker

Additional Research: Rick de la Parra

Playtesters: Brett Schulte and Jim Thomas

Campaign Ozark

Scenario Design: Drew Wagenhoffer

Additional Background Music: Dave Para, Bob Dyer, Cathy Barton

Playtesters: Mark Adams, Lee Quantrell, Doug Strickler, and Rich Walker

Special Thanks: Doug Keller of the Pea Ridge National Park for research assistance.

Campaign Corinth

Scenario Design: Drew Wagenhoffer

Playtesters: "Evil" Lee Quantrell, Mark Adams

Cover Painting: Andy Thomas